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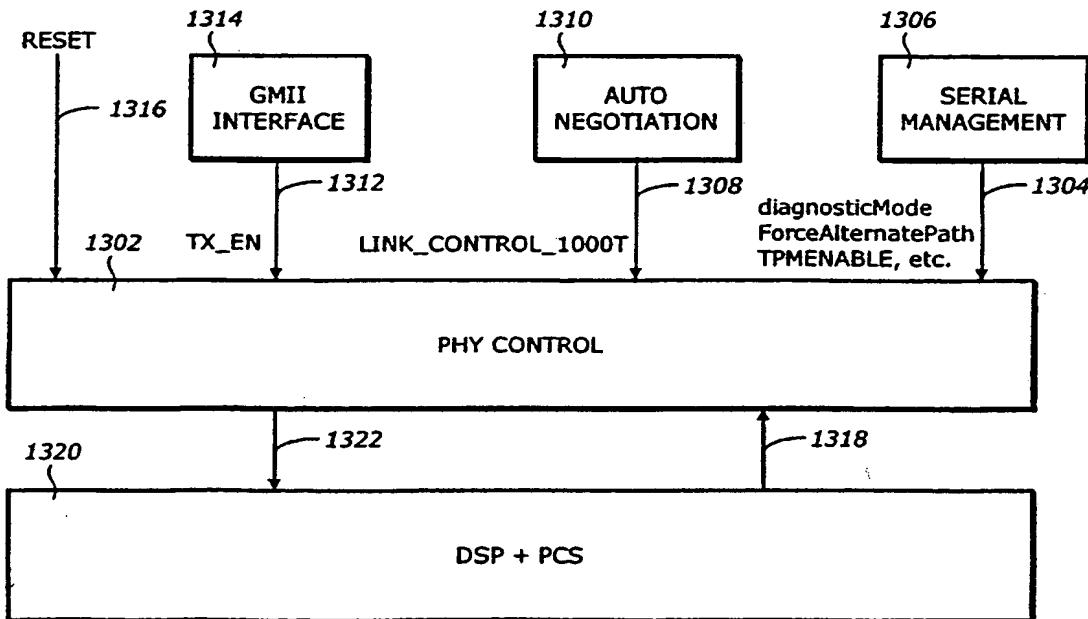
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(75) Inventor/Applicant (for US only): AGAZZI, Oscar E. [AR/US]; 16215 Alton Parkway, Irvine, CA 92618 (US).

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(54) Title: PHY CONTROL MODULE FOR A MULTI-PAIR GIGABIT TRANSCEIVER



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(57) Abstract: A method for controlling operation of a multi-pair gigabit transceiver. The multi-pair gigabit transceiver comprises a Physical Layer Control module (PHY Control), a Physical Coding Sublayer module (PCS) and a Digital Signal Processing module (DSP). The PHY Control receives user-defined inputs from the Serial Management module and status signals and diagnostics signals from the DSP and the PCS and generates control signals, responsive to the user-defined inputs, the status signals and diagnostics signals, to the DSP and the PCS.

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A. CLASSIFICATION OF SUBJECT MATTER		
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
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EPO-Internal, INSPEC, WPI Data, PAJ		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 07077 A (STANFORD SYNCOM INC) 11 February 1999 (1999-02-11) page 17, paragraph 2 page 61, paragraph 1 -page 63, paragraph 3 page 67, paragraphs 2,3 page 104, paragraph 2 -page 109, paragraph 3 page 116, paragraph 3 -page 117, paragraph 2 figures 1I,3,1D,10C,34	1-10,12, 13,15-22
X	WO 98 09400 A (OELCER SEDAT ; CHERUBINI GIOVANNI (CH); UNGERBOECK GOTTFRIED (CH);) 5 March 1998 (1998-03-05) abstract page 7, line 23 -page 8, line 8 page 14, line 8 - line 16 ---	9,10,12, 13
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.		<input checked="" type="checkbox"/> Patent family members are listed in annex.
<p>* Special categories of cited documents :</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>"&" document member of the same patent family</p>		
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>AGAZZI O E ET AL: "TWO-PHASE DECIMATION AND JITTER COMPENSATION IN FULL-DUPLEX DATA TRANSCEIVERS"</p> <p>PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON CIRCUITS AND SYSTEMS. (ISCAS), US, NEW YORK, IEEE,</p> <p>vol. CONF. 25, 10 May 1992 (1992-05-10),</p> <p>pages 1717-1720, XP000338277</p> <p>ISBN: 0-7803-0593-0</p> <ul style="list-style-type: none"> * I. Introduction * * II. Full-Duplex Transceiver Architecture. * <p>---</p>	9-14
A	<p>"Local and metropolitan area networks, Specific Requirements, Part 3: Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications."</p> <p>1998 , LAN MAN STANDARDS COMMITTEE OF THE IEEE COMPUTER SOCIETY , USA XP002145257</p> <ul style="list-style-type: none"> * 34.1 Overview * * 34.1.1 Reconciliation Sublayer (RS) and Gigabit Medium Independent Interface (GMII). * * Clauses 36.1 to 36.2.2 * * 36.2.5.2.7 Auto-Negotiation Process * * 36.3.1. Service Interface of PMA sublayer. * * 36.3.7. Loopback mode * * 36.3.8. Test functions. * <p>figures 34-1, 36-1</p> <p>---</p>	1-3, 15-17
A	<p>HATAMIAN ET AL.: "Design Considerations for Gigabit Ethernet 1000Base-T Twisted Pair Transceivers."</p> <p>CUSTOM INTEGRATED CIRCUITS CONFERENCE, 1998.,</p> <p>11 - 14 May 1998, pages 335-342,</p> <p>XP002145256</p> <p>the whole document</p> <p>-----</p>	6-8, 20-22

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9907077 A	11-02-1999	AU 8684098 A EP 1021884 A	22-02-1999 26-07-2000
WO 9809400 A	05-03-1998	NONE	

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